

REMARKS

I. Introduction

Claims 1, 4, 5, 7, 8, 10, 13, 14, 17, 18, 20 and 21 are currently pending after cancellation of claims 2, 3, 6, 9, 11, 12, 15, 16, 19 and 22. Claims 1, 5, 7, 10, 14, 18 and 20 have been amended. In view of the following remarks, it is respectfully submitted that the pending claims are allowable, and reconsideration is respectfully requested.

Applicant thanks the Examiner for accepting the drawings which was filed on September 4, 2003.

Applicant also thanks the Examiner for considering the Information Disclosure Statement which was filed on September 4, 2003.

II. Rejection of Claims 1-9 and 14-22 under 35 U.S.C. § 101

Claims 1-9 and 14-22 were rejected under 35 U.S.C. § 101 because the claimed invention is alleged directed to non-statutory subject matter, i.e., “claims 1-9 and 14-22 have no tangible result,” and “claims 14-22 are directed to software, per se.” While Applicant does not agree with the Examiner that “no tangible result” is provided in the claims, Applicant has amended the remaining independent claims 1, 10 and 14 clearly recite that “the three-dimensional, kinematic model of the at least two vehicles involved in the collision” is **visually represented**, thereby clearly providing a tangible result. Furthermore, independent claim 14 has been further amended to recite a “computer program stored on a computer-readable medium.”

For at least the foregoing reasons, rejected independent claims 1 and 14, as well as their pending dependent claims 4, 5, 7, 8, 17, 18, 20 and 21, are in compliance with 35 U.S.C. § 101.

III. Rejection of Claims 9, 12 and 22 under 35 U.S.C. § 112, second paragraph

Claims 9, 12 and 22 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Without passing judgment on the merits of the Examiner’s indefiniteness rejection, Applicant notes that claims 9, 12 and 22 have been canceled, thereby rendering moot the indefiniteness rejection.

IV. Rejection of Claims 1-2, 4-5, 10-11, 14-15 and 17-18 under 35 U.S.C. § 102(b)

Claims 1-2, 4-5, 10-11, 14-15 and 17-18 were rejected under 35 U.S.C. § 102(b) as being clearly anticipated by U.S. Patent No. 6,246,933 ("Baque"). Claims 2, 11 and 15 have been canceled. Applicant respectfully submits that remaining claims 1, 4-5, 10, 14 and 17-18 are not anticipated by the applied reference, for at least the reasons set forth below.

To anticipate a claim under § 102(b), a single prior art reference must identically disclose each and every claim element. See Lindeman Maschinenfabrik v. American Hoist and Derrick, 730 F.2d 1452, 1458 (Fed. Cir. 1984). If any claimed element is absent from a prior art reference, it cannot anticipate the claim. See Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997). Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claim invention, arranged exactly as in the claim. Lindeman, 703 F.2d 1458 (Emphasis added). Additionally, not only must each of the claim limitations be identically disclosed, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed invention, namely the inventions of the rejected claims, as discussed above. See Akzo, N.V. v. U.S.I.T.C., 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986). To the extent that the Examiner may be relying on the doctrine of inherent disclosure for the anticipation rejection, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art." (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Applicant notes that independent claims 1, 10 and 14 have been amended to incorporate features previously recited in claims 3 and 6, as well as several additional features. As clearly indicated by the Examiner's discussion of the rejection of claims 3 and 6, Basque does not teach or suggest the features previously recited in claims 3 and 6. Therefore, independent claims 1, 10 and 14, as well as their dependent claims 4, 5 and 17-18, are not anticipated by Baque.

V. Rejection of Claims 6 and 19 under 35 U.S.C. § 103(a)

Claims 6 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,246,933 ("Baque") in view of U.S. Patent No. 5,581,464 ("Woll"). Applicant respectfully notes that claims 6 and 19 have been canceled, thereby rendering moot the obviousness rejection.

VI. Rejection of Claims 3 and 16 under 35 U.S.C. § 103(a)

Claims 3 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,246,933 ("Baque") in view of U.S. Patent No. 5,526,269 ("Ishibashi"). Applicant respectfully notes that claims 6 and 19 have been canceled, thereby rendering moot the obviousness rejection.

VII. Rejection of Claims 7 and 20 under 35 U.S.C. § 103(a)

Claims 7 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,246,933 ("Baque") in view of U.S. Patent No. 6,675,074 ("Hathout"). Applicant respectfully submits that claims 7 and 20 are not rendered obvious by the applied references, for at least the reasons set forth below.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art references must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Claims 7 and 20 depend on claims 1 and 14, respectively. In support of the rejection of claims 7 and 20, the Examiner cites Hathout as teaching the feature of "utilizing a rotation-rate signal of an ESP system." Without passing judgment on the merits of the Examiner's assertions regarding the teaching of Hathout and the motivation for combining Baque and Hathout, Applicant notes that the overall teachings of Baque and Hathout clearly do not teach or suggest the features of parent claims 1 and 14, e.g., "calculating a three-dimensional, kinematic model of the at least two vehicles [involved in a collision], the model including . . . a radar signal of an adaptive cruise control system of each of the at least two vehicles, . . . wherein a time basis for the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal is provided by a real-time clock and recorded, and wherein the time basis is common to the at least two vehicles, and wherein the radar signal of the

adaptive cruise control system and the time basis provided by the real-time clock are utilized to determine relative positions of the at least two vehicles; and visually representing the three-dimensional, kinematic model of the at least two vehicles involved in the collision."

For at least the foregoing reasons, Applicant submits that claims 1 and 14, as well as their dependent claims 7 and 20, are not rendered obvious by the combination of Baque and Hathout.

VIII. Rejection of Claims 8, 13 and 21 under 35 U.S.C. § 103(a)

Claims 8, 13 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,246,933 ("Baque") in view of U.S. Patent No. 6,718,239 ("Rayner"). Applicant respectfully submits that claims 8, 13 and 21 are not rendered obvious by the applied references, for at least the reasons set forth below.

In rejecting a claim under 35 U.S.C. §103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art references must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Claims 8, 13 and 21 depend on claims 1, 10 and 14, respectively. In support of the rejection of claims 8, 13 and 21, the Examiner cites Rayner as teaching the feature of "outputting a message based on the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal in response to a predeterminable event." Without passing judgment on the merits of the Examiner's assertions regarding the teaching of Rayner and the motivation for combining Baque and Rayner, Applicant notes that the overall teachings of Baque and Rayner clearly do not teach or suggest the features of parent claims 1, 10 and 14, e.g., "calculating a three-dimensional, kinematic model of the at least two vehicles [involved

in a collision], the model including . . . a radar signal of an adaptive cruise control system of each of the at least two vehicles, . . . wherein a time basis for the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal is provided by a real-time clock and recorded, and wherein the time basis is common to the at least two vehicles, and wherein the radar signal of the adaptive cruise control system and the time basis provided by the real-time clock are utilized to determine relative positions of the at least two vehicles; and visually representing the three-dimensional, kinematic model of the at least two vehicles involved in the collision.”

For at least the foregoing reasons, Applicant submits that claims 1, 10 and 14, as well as their dependent claims 8, 13 and 21, are not rendered obvious by the combination of Baque and Rayner.

IX. Amended Independent Claims 1, 10 and 14

While all grounds of rejection presented by the Examiner have been overcome by the amendments presented in this paper, for the sake of completeness Applicant will discuss the teachings of the prior art references relied upon by the Examiner and the features contained in amended independent claims 1, 10 and 14.

Amended independent claim 1 recites, in relevant parts, a “method for analyzing driving data of at least two vehicles involved in a collision, comprising: calculating a three-dimensional, kinematic model of the at least two vehicles, the model including at least one linear-motion-dynamics signal and at least one lateral-motion-dynamics signal and a radar signal of an adaptive cruise control system of each of the at least two vehicles, wherein the at least one lateral-motion-dynamics signal includes a rotational-rate signal of a yaw sensor, and wherein a time basis for the at least one linear-motion-dynamics signal and the at least one lateral-motion-dynamics signal is provided by a real-time clock and recorded, and wherein the time basis is common to the at least two vehicles, and wherein the radar signal of the adaptive cruise control system and the time basis provided by the real-time clock are utilized to determine relative positions of the at least two vehicles; and visually representing the three-dimensional, kinematic model of the at least two vehicles involved in the collision.” Amended independent claims 10 and 14 recite substantially similar features as the above-recited features of claim 1.

As recited in amended independent claims, the present invention involves: a) calculating a three-dimensional, kinematic model of at least two vehicles involved in a collision; b) the model including a linear-motion-dynamics signal, a lateral-motion-dynamics signal, and a radar signal of an adaptive cruise control system, of each of the at least two vehicles; c) the at least one lateral-motion-dynamics signal includes a rotational-rate signal of a yaw sensor; d) a common time basis for the signals of the at least two vehicles involved in the collision is provided by a real-time clock and recorded; d) the radar signal of the adaptive cruise control system and the time basis provided by the real-time clock are utilized to determine relative positions of the at least two vehicles; and e) visually representing the three-dimensional, kinematic model of the at least two vehicles involved in the collision. Applicant notes that the overall teachings of the prior art references relied upon in the present invention, i.e., Baque, Woll, Ishibashi, Hathout, Rayner, simply do not teach or suggest calculating an overall three-dimensional, kinematic model of a collision involving two vehicles, which model utilizes motion signals and radar signals of each of the vehicles, as well as utilizing the radar signals in conjunction with a common time basis for the two vehicles provided a real-time clock to determine relative positions of the at least two vehicles involved in the collision, let alone visually displaying the overall three-dimensional, kinematic model of a collision.

For at least the foregoing reasons, Applicant submits that independent claims 1, 10 and 14, as well as their pending dependent claims 4, 5, 7, 8, 13, 17, 18, 20 and 21, are patentable over the prior art references relied upon by the Examiner.

CONCLUSION

In view of all of the above, it is respectfully submitted that all of the presently pending claims are allowable. A prompt, favorable action on the merits is respectfully requested.

Respectfully submitted,

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By: SONG LEE for Gerard Messina
Gerard A. Messina
(Reg. No. 35,952)

KENYON & KENYON LLP
One Broadway
New York, New York 10004
(212) 425-7200